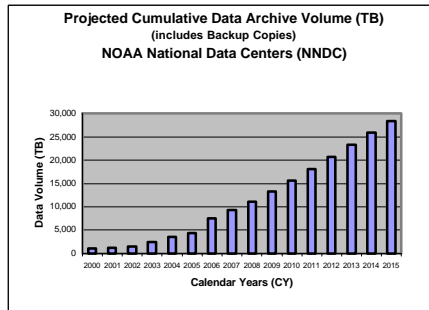
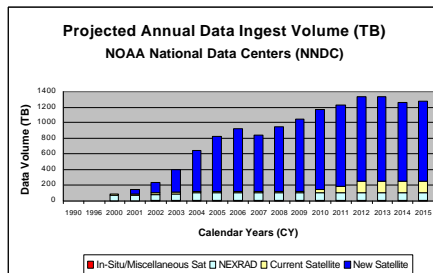


# National Environmental Satellite, Data, and Information Service Comprehensive Large Array-data Stewardship System



**Projected Cumulative  
Archive Growth**



**Projected Annual  
Archive Growth**

**The National Requirement:** The Nation requires access to environmental data to support the generation of warnings and forecasts needed to (1) save lives and protect property; (2) enhance the economic prosperity and quality of life in the United States; and, (3) inform decision makers on public policy issues. Scientists and advisors also have a critical need for a long time-series of historical and recent environmental data to assess long-term environmental trends, evaluate the current environmental status, and to predict future conditions and events.

**NOAA's Response:** NOAA spends almost a billion dollars each year collecting environmental data in support of its mission. NOAA is responsible for the stewardship of over one petabyte ( $10^{15}$ ) of environmental data and information, which is expected to grow to well over 18 petabytes by 2011. NESDIS collects, archives, and disseminates environmental data from a variety of space-based and other sources. The timeliness of access to these data and the completeness of the available environmental record are crucial.

With the advent of the Internet, a global market for NOAA data and information services sprang up nearly overnight. The number of individuals accessing NOAA information services increased by two orders of magnitude over the past five years, extending far beyond the traditional NOAA user community. Users are requesting on-line ordering, on-line search and browse capabilities, and electronic file transfer for data delivery.

To meet this tremendous increase in the rate of access and volume of data, NOAA initiated the Comprehensive Large Array-data Stewardship System (CLASS), an archiving and access activity focused on improving the stewardship of NOAA environmental data and information, making it easily accessible to the world science community and to other users in an efficient, secure, cost-effective manner. The heart of CLASS will be upgraded communications capabilities; increased computer storage and power; the use of commercially available, modular hardware and software; and expansion of World Wide Web access to the data and information through new or enhanced database management, search, order, browse, and sub-setting techniques.

**Financing:** The FY 2003 NOAA budget includes \$3.6 million for CLASS within the funding requested for Climate Observations and Services by the Office of Oceanic and Atmospheric Research.